

Notice of Allowability

Application No.

09/531,658

Examiner

Brandon J Miller

Applicant(s)

SIM ET AL.

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/07/2005.
2. ☒ The allowed claim(s) is/are 1-30, 32-34, 42 and 44.
3. ☒ The drawings filed on 20 March 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 04/11/2005.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Response to Amendment

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steve Cha on 04/19/2005.

The application has been amended as follows: Replace all claims on pages 2-17 of preliminary amendment filed 02/07/2005 with the following claims:

1. (Currently Amended) A data transmitting apparatus for a digital mobile station, said apparatus comprising: a data storage section for storing data to be transmitted; an encoding section for reading and encoding the stored data in a predetermined form; a data transmission header generating section for generating inherent distinction data transmission headers configured for point-to-point communication and corresponding to the data encoded by the encoding section, said headers having a field for distinction of a kind of transmitted data; a control section for forming the encoded data and the generated data transmission headers into user data of a short message service; and, a short message transmitting section configured for transmitting, on a point-to-point communication channel, short message service blocks that include the user data of the short message service.

2. (Original) The data transmitting apparatus as claimed in Claim 1, wherein the encoding section includes means for encoding the readout data by a run length coding.

3. (Currently Amended) The data transmitting apparatus as claimed in Claim 1, wherein the data transmission header generating section comprises: means for generating a data header field for distinctively identifying the transmitted data; and, means for generating a transmitted data field allocated with the encoded transmitted data.

4. (Currently Amended) The data transmitting apparatus as claimed in Claim 3, wherein the data header field further includes a transmitted data distinction field, and a transmitting part distinction field.

5. (Original) The data transmitting apparatus as claimed in Claim 3, wherein the transmitted data field further comprises a field which has a field length predetermined by a system, which is properly allocated with the encoded data corresponding to the field length, and which is allocated with a block termination code for indicating the termination of the allocated encoded data.

6. (Currently Amended) The data transmitting apparatus as claimed in Claim 1, wherein the control section includes a means for dividing the encoded data into blocks having a proper amount of data, adding the data transmission headers having different transmission orders to the respective divided blocks, and forming the respective blocks added with the data transmission headers into the user data of the short message service.

7. (Original) The data transmitting apparatus as claimed in Claim 6, wherein the control section forms the short message blocks by adding the short message service headers to the user data of the short message service.

Art Unit: 2683

8. (Original) The data transmitting apparatus as claimed in Claim 7, wherein the short message service transmitting section sequentially transmits the short message service blocks with reference to transmission orders added to the data transmission headers.

9. (Currently Amended) A data receiving apparatus for a digital mobile terminal, said apparatus comprising: a data transmission header detection and analyzing section configured for detecting predetermined inherent data transmission headers from short message service blocks received from a point-to-point communication channel, and analyzing the detected data transmission headers; a decoding section for decoding the received short message service blocks in a predetermined form according to the data transmission headers detected by the data transmission header detecting and analyzing section; a control section for distinctively determining storage regions of the decoded short message service blocks according to a result of analyzing the data transmission headers; and, a data storage section for storing the decoded short message service blocks according to the determined storage regions.

10. (Original) The data receiving apparatus as claimed in Claim 9, wherein the decoding section includes a means for decoding the received short message service blocks by a run length decoding.

11. (Original) The data receiving apparatus as claimed in Claim 9, wherein the data transmission header detecting section includes a means for detecting from the received short message service blocks code data included in a data header field for the distinction of transmitted data and a transmitted data field allocated with encoded transmitted data, and for analyzing the detected code data.

12. (Original) The data receiving apparatus as claimed in Claim 11, wherein the data transmission header detecting and analyzing section detects and analyzes code data from the data header field including a transmitted data distinction field, a transmitting part distinction field, a transmitted data kind distinction field, and a transmitted block order field.

13. (Original) The data receiving apparatus as claimed in Claim 11, wherein the data transmission header detecting and analyzing section detects and analyzes a block termination code which is included in the transmitted data field and which indicates a final data of the received short message service block.

14. (Original) The data receiving apparatus as claimed in Claim 9, wherein the control section includes a means for designating storage orders of the decoded short message service blocks according to an analysis result of the respective data transmission headers included in the respective received short message service blocks, and for then determining storage positions of the short message service blocks.

15. (Currently Amended) A data transmitting method for a digital mobile station using a short message service, said method comprises the steps of:

- (1) reading and encoding stored data in a data transmission mode;
- (2) generating inherent distinction data transmission headers according to completion of data encoding and for point-to-point communication;
- (3) forming the encoded data and the generated data transmission headers into user data of a short message service;
- (4) transmitting, on a point-to-point communication channel, short message service blocks including the user data of the short message service;

Art Unit: 2683

(5) comparing an amount of the encoded data with that of the readout data; and
(6) selecting the data having a lesser amount of data as the result of comparison, and forming the selected data and the generated data transmission header into the user data of the short message service.

16. (Original) The data transmitting method as claimed in Claim 15, further comprising the step of:

(5) comparing an amount of the encoded data with that of the readout data; and
(6) selecting the data having a lesser amount of data as the result of comparison, and forming the selected data and the generated data transmission header into the user data of the short message service.

17. (Original) The data transmitting method as claimed in Claim 15, wherein step (1) includes encoding the readout data by a run length coding.

18. (Original) The data transmitting method as claimed in Claim 15, wherein step (2) includes generating the data transmission header, which includes a transmitted data distinction field for distinction of the transmitted data, a field for a whole number of blocks of the encoded data, a field for a transmission order of the encoded data, a transmitting part distinction field, and a field for the distinction of a kind of the transmitted data.

19. (Original) The data transmitting method as claimed in Claim 15, further comprising the steps of:

(5) making the encoded data into blocks having a predetermined amount of data if the amount of the encoded data is larger than a predetermined amount of data;

(6) adding inherent data transmission headers and short message service headers to the respective data blocks; and,

(7) sequentially transmitting the data blocks in a predetermined order.

20. (Original) The data transmitting method as claimed in Claim 19, further comprising the step of:

(8) adding a block termination code which indicates a final data of the block to the respective data block.

21. (Currently Amended) A data receiving method for a digital mobile station using a short message service, comprising the steps of:

(1) in a standby state, detecting whether short message service blocks that have been transmitted on a point-to-point communication channel are received;

(2) detecting whether the detected short message service blocks detected in step (1) include predetermined inherent distinction data transmission headers for point-to-point communication;

(3) analyzing the data transmission headers and then decoding the received short message service blocks according to a result of analysis if the data transmission headers detected in step (2) include predetermined inherent distinction data transmission headers for point-to-point communication, said analyzing including analysis of a field for distinction of a kind of the transmitted data; and

(4) storing the decoded short message service blocks in succession to previously processed short message service blocks.

Art Unit: 2683

22. (Original) The data receiving method as claimed in Claim 21, wherein the step (2) includes detecting whether a transmitted data distinction code for distinction of the transmitted data is included in the distinction data transmission header.

23. (Currently Amended) The data receiving method as claimed in Claim 21, wherein the step (3) includes detecting and analyzing a transmitted data distinction code for distinction of the transmitted data, a code for a whole number of blocks of the encoded data, a code for a transmission order of the encoded data, and a transmitting part distinction field.

24. (Original) The data receiving method as claimed in Claim 21, wherein the step (3) includes decoding the received short message service blocks by a run length decoding.

25. (Original) The data receiving method as claimed in Claim 21, further comprising the step of:

(5) storing the decoded short message service block in a different storage region from that of the previously processed and stored message service block.

26. (Currently Amended) A short message service data transmitting method for a digital mobile station comprising the steps of:

(1) reading and encoding stored data and making the encoded data into blocks of a predetermined unit in a short message service data transmission mode;

(2) generating inherent transmission headers configured for point-to-point communication and corresponding to the respective data blocks and adding the transmission headers to the data blocks encoded in step (1), respectively, said headers having a field for distinction of a kind of transmitted data;

Art Unit: 2683

(3) adding short message headers to the data blocks to which the transmission headers generated in step (2) are added, respectively; and,

(4) sequentially transmitting the data blocks on a point-to-point communication channel.

27. (Currently Amended) The short message service data transmitting method as claimed in Claim 26, wherein the inherent transmission header generated in step (2) further include a transmitted data distinction field, a field for a whole number of blocks of the encoded data, a field for a transmission order of the encoded data, and a transmitting part distinction field.

28. (Original) The short message service data transmitting method as claimed in Claim 27, further comprising the step of sequentially transmitting the blocks in step (4) with reference to the field for the transmission order of the encoded data.

29. (Original) The short message service data transmitting method as claimed in Claim 26, further comprising the step of displaying a state of the blocks sequentially transmitted in step (4) with reference to the generated inherent transmission headers.

30. (Currently Amended) A method of constructing short message service (SMS) blocks for a digital mobile station, comprising the steps of:

(1) dividing encoded data into blocks of a predetermined unit;

(2) generating inherent data transmission headers configured for point-to-point communication and corresponding to the respective divided blocks and adding the generated data transmission headers to the divided blocks, respectively;

(3) adding SMS headers configured for point-to-point communication to the divided blocks to which the data transmission headers are added, respectively; and

(4) generating and adding to the respective divided blocks a block termination code for indicating a final data of the respective block.

31. (Cancelled).

32. (Original) The method as claimed in Claim 30, wherein the generated inherent data transmission header comprises a transmitted data distinction field including a transmitted distinction code, a field for a whole number of blocks, a transmission order field, a transmitting part distinction field, and a field for distinction of a kind of the transmitted data.

33. (Original) The method as claimed in Claim 32, wherein the generated inherent data transmission header further comprises a coding type distinction field for indicating an encoding type.

34. (Original) The method as claimed in Claim 30, wherein the generated inherent data transmission header further comprises an extension field applied and used according to an intent of a service provider.

35. (Cancelled).

36. (Cancelled).

37. (Cancelled).

38. (Cancelled).

39. (Cancelled).

40. (Cancelled).

41. (Cancelled).

42. (Currently Amended) A short message service block transmitting and receiving apparatus for a digital mobile station, comprising: a short message service block transmitting and

Art Unit: 2683

receiving section configured for transmitting and receiving short message service blocks by means of a point-to-point communication channel; a transmitted data storage section for storing the transmitted and received short message service blocks; a data coding section for encoding the transmitted data and dividing the encoded data into blocks of a predetermined unit, the data coding section sequentially decoding the blocks sequentially received in a predetermined order; a header generating section for generating inherent transmission headers to be added to the respective blocks, the headers being configured for point-to-point communication; a transmission header detecting and analyzing section for detecting and analyzing the inherent transmission headers included in the received short message service blocks; a control section for designating a storage order of the decoded blocks according to a result of analyzing the detected transmission headers, adding short message service headers to the respective blocks to which the transmission headers are added, and transmitting the blocks including the transmission headers and the short message service headers added thereto; and a display section for displaying a state of the short message transmitted and received according to the result of analyzing the detected transmission headers.

43. (Cancelled).

44. (Currently Amended) The data transmitting apparatus of claim 1, wherein the kind of transmitted data subject to said distinction is graphic data having white and black components.

45. (Cancelled).

46. (Cancelled).

47. (Cancelled).

Art Unit: 2683

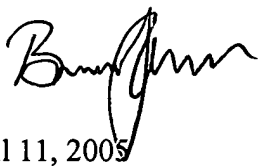
The following is an examiner's statement of reasons for allowance: An agreement was made with Steve Cha on 04/05/2005 that claims 1-30, 32-34, 42, and 44, allowed 10/22/2004 are to replace the currently amended claims filed 2/7/2005 using an Examiner's Amendment.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



April 11, 2005



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600